

REMARKS

In the outstanding office action, claims 28-39 were presented for examination. Applicant notes the withdrawal of the previous grounds for rejection of claims 30-39 based solely on the reference to Minematsu. It is respectfully submitted that the rejection of claims 28 - 9 should also be withdrawn on account of basic differences between the method of the present invention and the apparatus and method taught by Minematsu. More particularly, the claims, as amended, clearly recite important differences between Minematsu and the present invention. It is also respectfully submitted that the rejection based on Shpiro should also be withdrawn as Shpiro does not deal with voice recognition, but rather speech correction where a database of mispronounced words is consulted. Similarly, Minematsu deals with the problems associated with mispronunciations, and does so with a database built only using mispronounced speech, clearly in contrast to the recitations of the pending claims.

To summarize the art of record, compared to the prior art, Minematsu merely teaches that a speech recognition program may be based upon speech samples of persons with a known voice characteristic in order to improve accuracy. In other words, a program tuned to British speakers will be more effective in recognizing speech spoken by British speakers as compared to a program utilizing a base generated using North American speakers. In essence, Minematsu recognizes that dialects, or English spoken by a well-defined foreign group, such as native Japanese speakers, are separate languages and require separate products. Minematsu thus provides for a product which does not take into account diversity in the dialects. This is not surprising, because there is no such diversity in speech which is true to a dialect.

Prior art speech recognition systems attempt to deal with diversity by basing a single model on a database compiled from a mixture of dialects. Neither Minematsu nor conventional speech engines deal with diversity as diverse elements which need to be treated separately. Thus, the use of multiple databases in a speech recognition engine is novel, as is recognized by the nature of the rejections made in the outstanding office action.

Nor is there any hint in Minematsu that diversity should be handled in any other manner. Certainly, there is no teaching by Minematsu of using mispronunciation recognition to improve accuracy. Nor is this remotely taught by Shpiro.

Indeed, Shpiro does not even deal with speech recognition. Rather, Shpiro deals with language training. There is not the remotest reference in Shpiro to the claimed voice to text application. While Shpiro does recognize mispronunciations, this is apparently done only for the purpose of triggering a canned, how to pronounce properly, instruction.

Moreover, Shpiro's databases don't even match the claimed databases claimed in some of the claims. For example, claim 30 specifically recites having "a person, who normally speaks said known audible sounds properly, speak said properly pronounced known audible sounds" and a "person who usually speak said known audible sounds corresponding to mispronunciations". This compares with Shpiro who specifically teaches at col. 4, lines 6-9 that "each speaker pronounces the phrase correctly and also repeats the phrase incorrectly a few times, each time with a different one of a plurality of predetermined pronunciation errors."

In any case, the detection of mispronunciations is irrelevant in the context of a speech training system, such as the system taught by Shpiro. The recognition of words from accented speakers using an accented speakers database is taught by Minematsu. There is no suggestion that mispronunciations should be individually recognized to improve speech recognition and thus provide a product which is universally usable, even by speakers who may not even know how they speak.

Indeed, if one combined Minematsu and Shpiro, one would have only a language teaching system for Japanese speakers in which Japanese native speakers are used to generate the database instead of the trained speakers, who also speak the proper pronunciations, as taught by Shpiro. The result would be an improved language teaching system as compared to Shpiro. However, even assuming this combination is taught, it still does not remotely teach a voice recognition system in which multiple pronunciations are maintained in separate databases (as claimed in all of the claims), instead of being blended together to get an average pronunciation of a word by all sorts of speakers as is done in the prior art.

Turning to the substance of the claims, processing of words and phrases in voice recognition, through the use of two databases, in a manner not to by the prior art is recited in claim 30. Accordingly, it is believed that claim 30 is clearly allowable.

Claims 31-35 recite the presentation of speech training to a user. Clearly, the


same is not taught by Minematsu. Accordingly it is believed these claims are in condition for allowance.

Claim 35, for example, deal with the sensitivity of error detection for the threshold algorithm, something which is not remotely taught by the prior art, and which, accordingly, is believed to render these claims allowable over the of record.

Claim 30 deals with a method which incorporates the development of a database using speakers who speaks properly and other speakers who do not pronounce words properly. This is not remotely taught to the prior art and is also believed to be clearly patentable subject matter. As noted above, this is something which is not remotely taught by the part of record and, accordingly, this clearly renders the subject matter of these claims patentable over Minematsu and Shpiro.

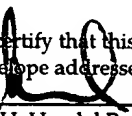
In view of the above amendments and the discussion relating thereto, it is respectfully submitted that the instant application, is in condition for allowance. Such action is most earnestly solicited. If for any reason the Examiner feels that consultation with Applicant's attorney would be helpful in the advancement of the prosecution, he is invited to call the telephone number below for an interview.

Respectfully submitted,

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